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Understanding How USDA-FSIS Determines the Age of Cattle for Current BSE Regulations

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This NebFact discusses the key points used by USDA-FSIS veterinary inspectors to classify cattle as being under or over 30 months of age. Age helps determine which carcasses will be segregated for removal of "specified risk materials" associated with bovine spongiform encephalopathy (BSE).

Overview

On January 12, 2004, the United States Department of Agriculture (USDA) issued new interim final rules to protect the public from the agent of BSE. The new regulations classified the skull, brain, trigeminal ganglia, eyes, vertebral column, spinal cord and dorsal root ganglia of cattle over 30 months of age as well as the small intestine of all cattle, regardless of age, as specified risk materials and prohibited their use in human food.

The regulations prescribed two methods that could be used to determine the age of an individual animal:

1. Documentation that identifies the age of the animal, such as a birth certificate, cattle passport or some other form of identification that is presented with the animal when it arrives for slaughter.
2. Examination of the dentition of the animal to determine whether at least one of the second set of permanent incisors has erupted (the permanent incisors of cattle erupt from 24 through 30 months of age).

Documentation

The USDA feels that documentation is the best way to determine the age of cattle because it provides the means to specifically age animals. Establishments that separate cattle based on whether they are younger or older than 30 months of age may rely on documentation. The USDA Food Safety Inspection Service (FSIS) characterized acceptable documentation as records or certificates related to individual

cattle, rather than information about an entire lot, and that provides evidence of age that goes back to the farm where the cattle were born, including the name and the address of the owner. These documents include:

- pregnancy check records (checks for individual cows and the results of the check for each one);
- records of which cows were in a herd when a bull was put in with the herd;
- records of when the bull was removed from the herd (to determine start of gestation);
- records that document when individual cows were artificially inseminated;
- calving records that document where (i.e., name and address of the producer) and when a calf was born; or
- identification applied to calves (e.g., records from branding, electronic ear IDs, or ear tags).

The USDA noted that when ranges of calving dates are provided, the oldest possible age based on the ranges should be assigned to the group of cattle.

This does not preclude the examination of dentition if documentation is not available. The USDA noted that hands-on dentition examinations are not to be used to determine the adequacy of the documentation. However, if FSIS inspection personnel examine the records and question their validity, they will verify the age of the cattle by dental examination.

Dentition

Dentition can be used in the absence of documentation; unfortunately, it only provides a general determination of age. The USDA-FSIS instructed all veterinary medical officers in packing plants to consider cattle to be 30 months and older when the examination of the dentition of the animal shows that at least one of the second set of permanent incisors has erupted (Figure 2). The USDA-FSIS noted they recognize that the permanent incisors of cattle erupt from 24 through 30 months of age, but that the USDA has determined that the described dentition procedure will be most protective of public health.

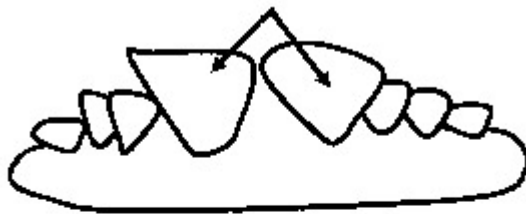
Full set of eight temporary teeth, at about 15 months of age



Erupting first set of permanent incisor.



Erupted first set of permanent incisor.



Temporary incisors



Erupting third permanent incisor, top of tooth NOT above gum line, animal less than 30 months of age.

First set permanent incisors



Erupted third permanent incisor, top of tooth above gum line, animal 30 months of age.

Erupting fourth permanent incisor.



Erupted third permanent incisor (with top corners of the tooth above the gum line), animal 30 months of age or older.



Four permanent incisor, (with top corners of the second set above the gum line), animal 30 months of age or older.

Full set of permanent incisors, animal over 48 months of age.



Figure 1. The detention depicted represents cattle less than 30 months of age.

Figure 2. The detention depicted represents cattle 30 months of age or older.

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